

FIG. 1

***Hermite-Gaussian
mode VCSEL:***



FIG. 2A

***Laguerre-Gaussian
mode VCSEL:***



FIG. 2B

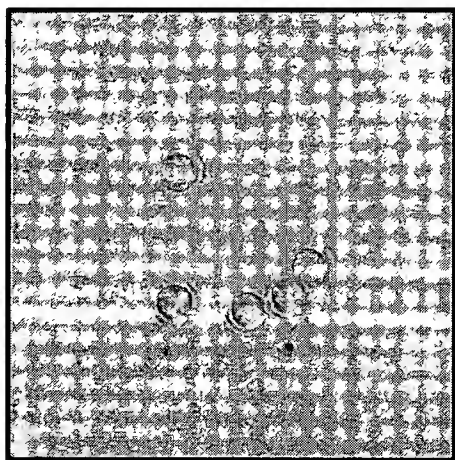


FIG. 3A

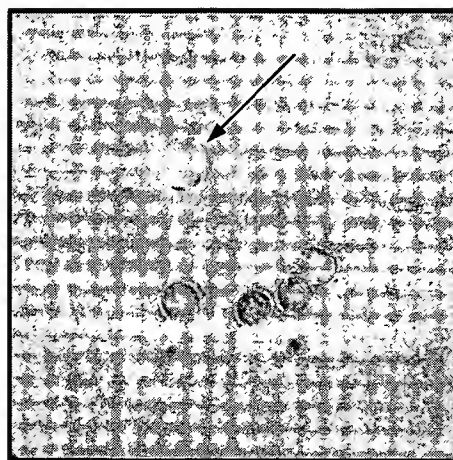


FIG. 3B

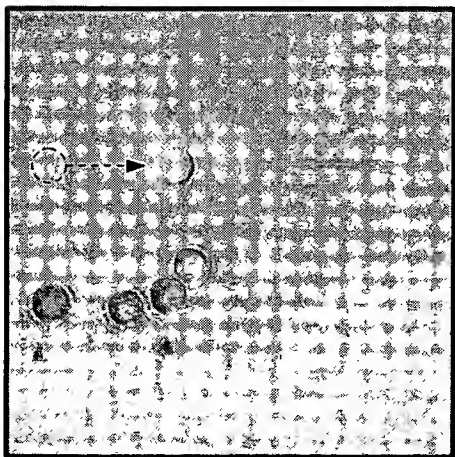


FIG. 3C

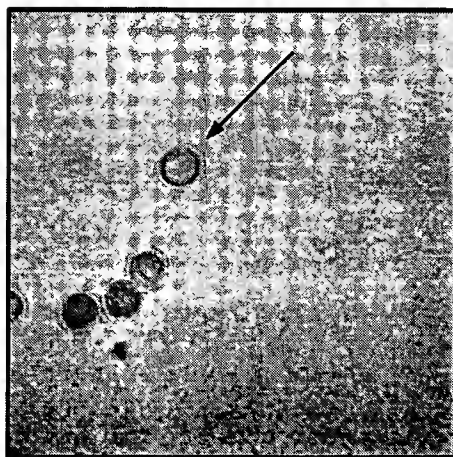


FIG. 3D

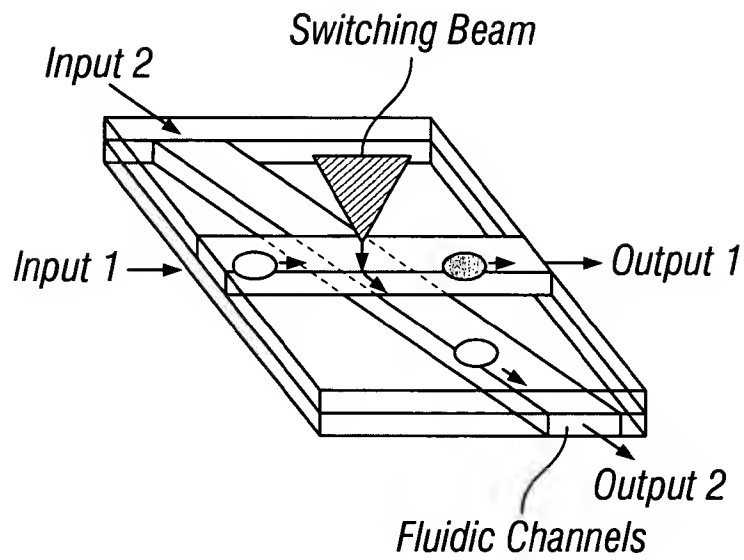


FIG. 4A

Optical Beam Off:

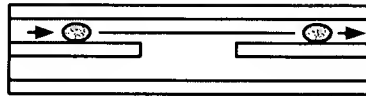


FIG. 4B

Optical Beam On:

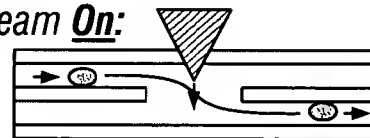


FIG. 4C

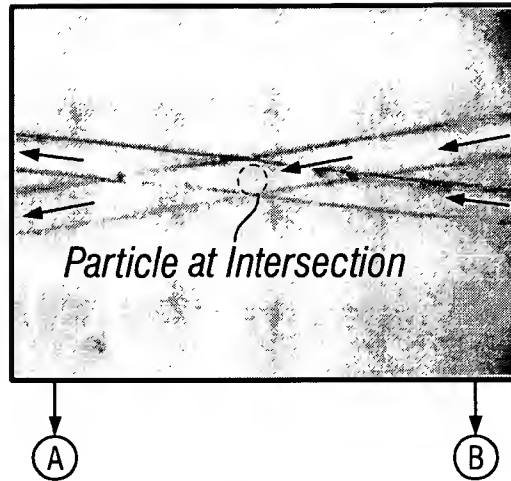


FIG. 5A

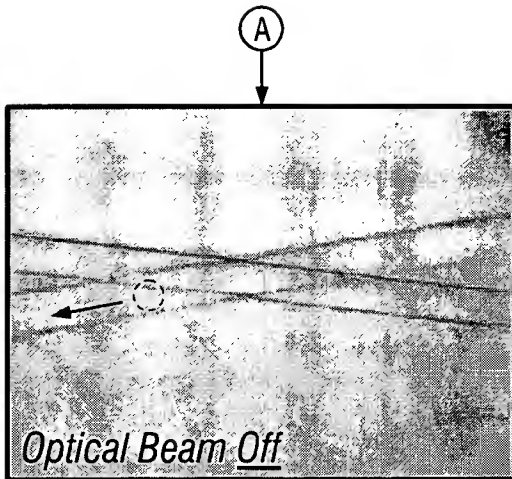


FIG. 5B

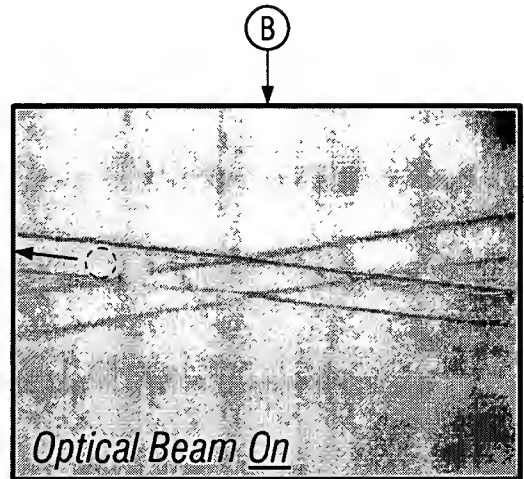


FIG. 5C

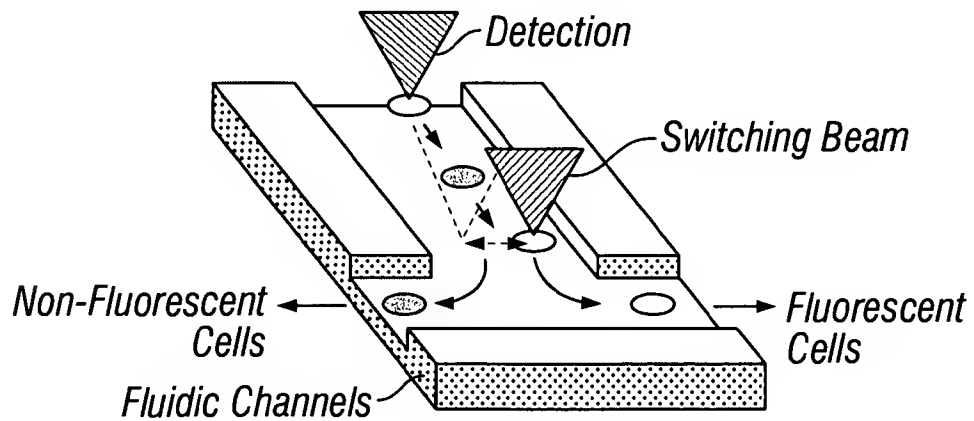


FIG. 6

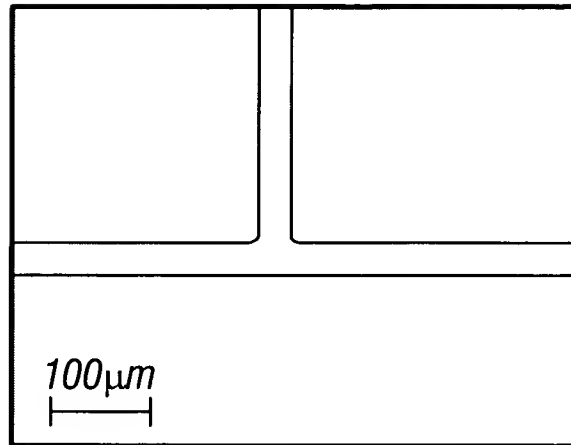


FIG. 7A

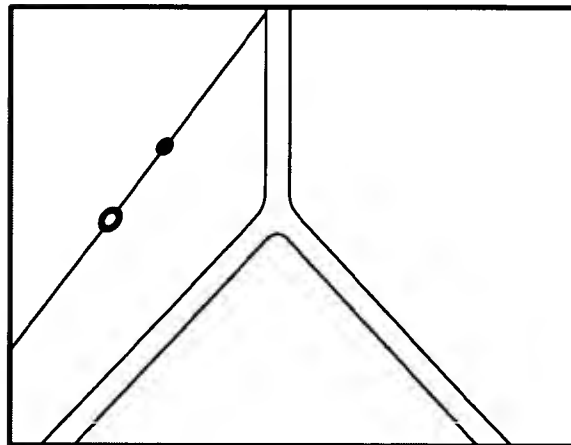


FIG. 7B

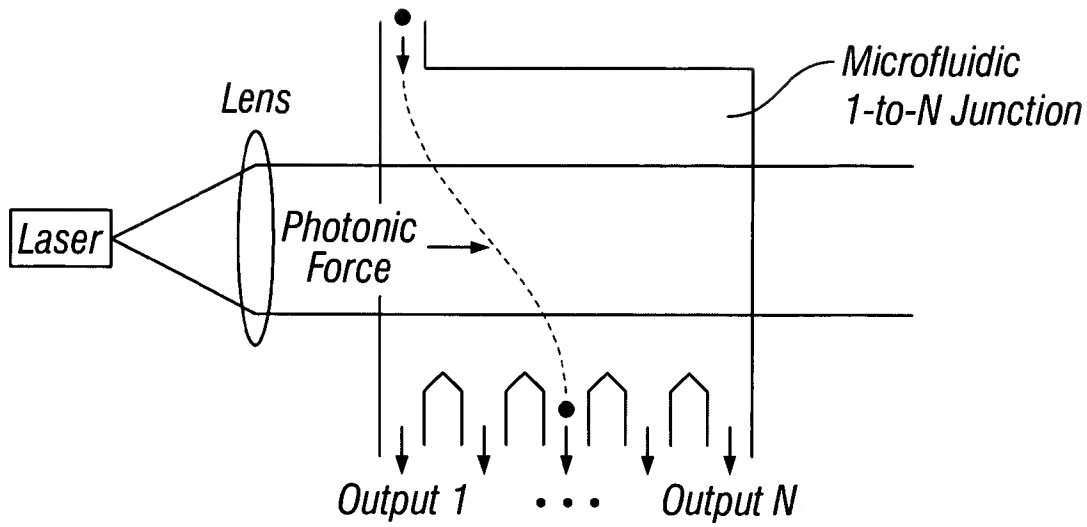


FIG. 7C

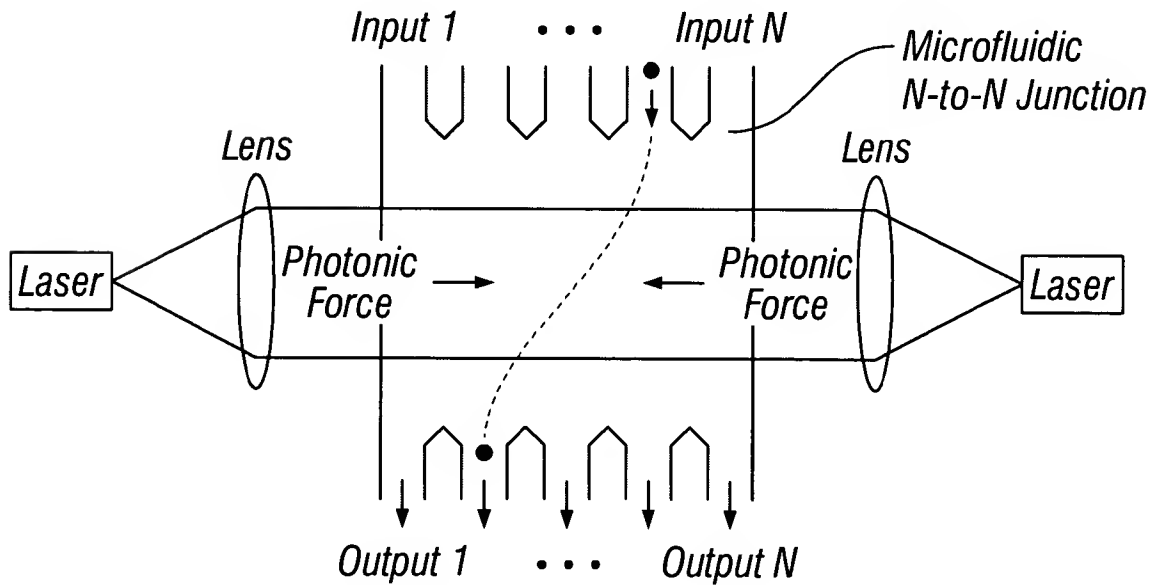


FIG. 7D

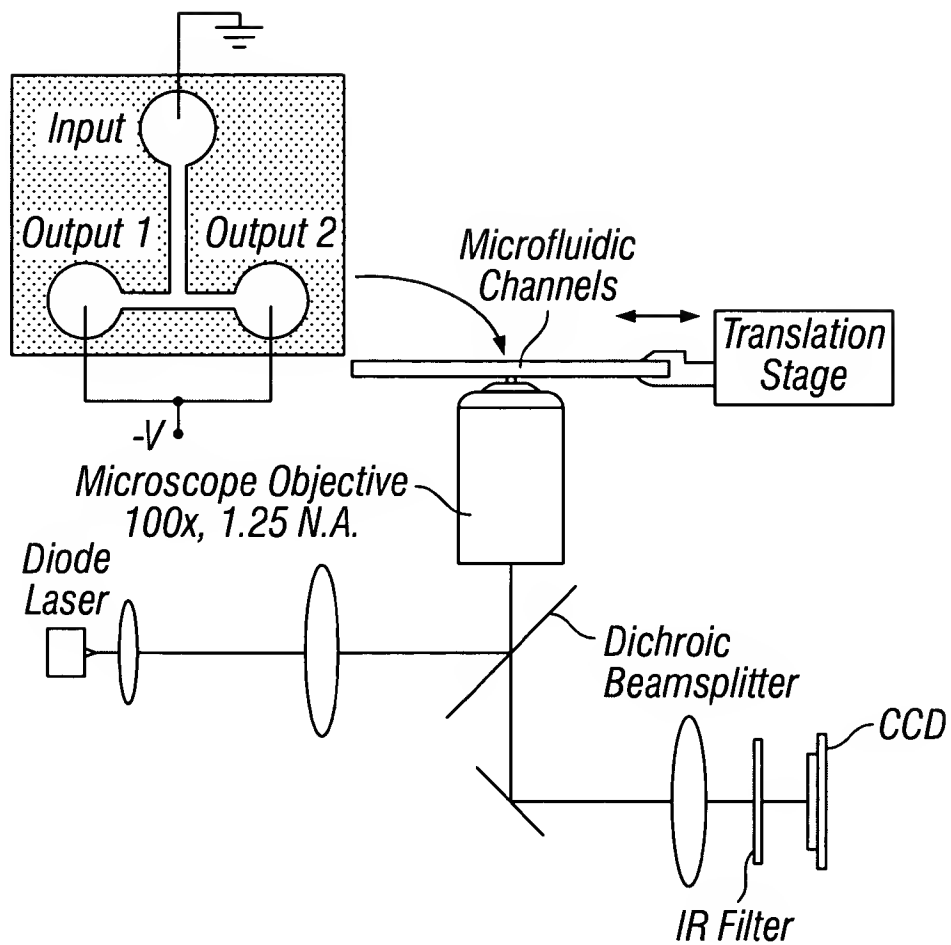


FIG. 8

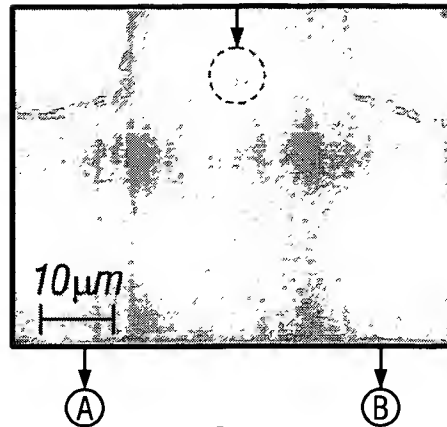


FIG. 9A

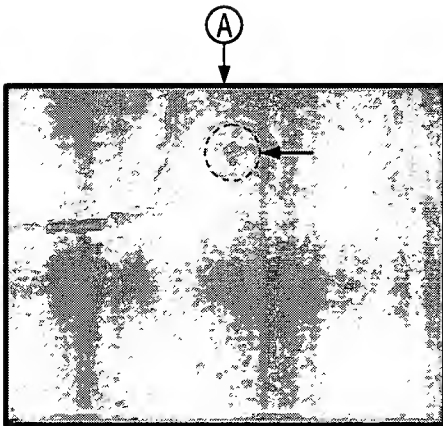


FIG. 9B

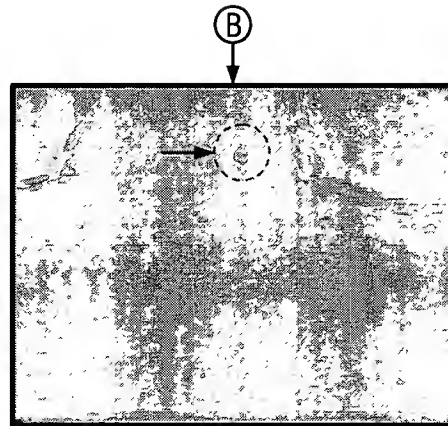


FIG. 9D

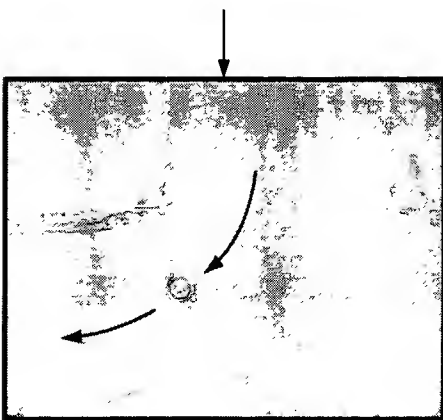


FIG. 9C

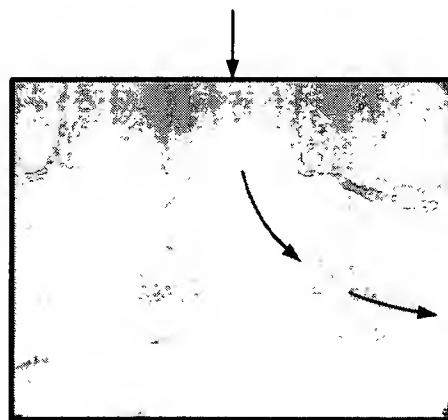


FIG. 9E